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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,208	03/23/2004	Ichiro Akiyama	OGW-0312	1921

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EXAMINER

JOHNSTONE, ADRIENNE C

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,208

Applicant(s)

AKIYAMA ET AL.

Examiner

Adrienne C. Johnstone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 8-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 21, 2006 has been entered.

Claim Objections

2. Claims 8 and 10 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 8 still does not appear to further limit claim 1 because it merely recites the definition of the term "sectional area changing rate", and since this is the only definition of the term in the original disclosure this definition must also apply to the sectional area changing rate already recited in claim 1. A similar problem exists in new claim 10 with respect to new claim 9.
3. Claims 9-23 are objected to because of the following informalities: in claim 9 line 5 applicants should change "annual" to -- annular -- to correct a typographical error. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1-3 and 8-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

See paragraph 2 above: if the definition in the original disclosure and in claims 8 and 10 is not the definition of the term "sectional area changing rate" in claims 1 and 9, it is not clear what is required by the sectional area changing rate limitation in claims 1 and 9.

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1 and 8-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over German Patent Application 100 51 735 A1.

See the abstract, Figure 2, and the translation: the close correspondence of structure and function (reducing resonance inside the tire cavity) between the claimed tire/wheel assembly and the reference tire/wheel assembly provides a reasonable basis for the examiner to infer that the reference tire/wheel assembly also has a sectional area changing rate within the claimed range of 5.0% to 25%; burden is thus shifted to applicants to show an unobvious difference (MPEP 2112, 2112.01). In any case, the reference recognizes that the change in sectional area of the tube around the tire circumference (which fixes the tire cavity sectional area changing rate for a given tire/wheel assembly) determines the resonance inside the tire cavity of a given tire/wheel assembly (abstract, translation), making the tire cavity sectional area changing rate a result-effective variable to be

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optimized by one of ordinary skill in the art (MPEP 2144.05(II)); it would therefore have been obvious to one of ordinary skill in the art to provide the above tire/wheel assembly with an optimized sectional area changing rate within the claimed range of 5.0% to 25% in order to minimize resonance inside the tire cavity.

9. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent Application 100 51 735 A1 in view of Aflague et al. (5,385,191).

See paragraph 8 above: it is well known in such dual chamber pneumatic tire and wheel assemblies to provide an inflation valve for each chamber extending through the wheel rim, spaced 180 degrees apart to balance each other, as evidenced by Aflague et al. (col. 3 lines 34-62) for example; it would therefore have been obvious to one of ordinary skill in the art to provide such well known valve arrangement in the above tire/wheel assembly in order to inflate each chamber and balance the assembly.

10. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent Application 100 51 735 A1 in view of *Webster's New World Dictionary*.

See paragraph 8 above: claims 11 and 12 merely recite conventional disk wheel structure, as evidenced by *Webster's New World Dictionary* (pp. 96, 1157, and 1520) for example; it would therefore have been obvious to one of ordinary skill in the art to provide such conventional wheel structure in the above tire/wheel assembly.

11. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent Application 100 51 735 A1 in view of *Webster's New World Dictionary* as applied to claims 11 and 12 above, and further in view of Aflague et al. (5,385,191).

It is well known in such dual chamber pneumatic tire and wheel assemblies to provide an inflation valve for each chamber extending through the wheel rim, spaced 180 degrees apart to

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balance each other, as evidenced by Aflague et al. (col. 3 lines 34-62) for example; it would therefore have been obvious to one of ordinary skill in the art to provide such well known valve arrangement in the above tire/wheel assembly in order to inflate each chamber and balance the assembly.

12. Claims 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent Application 100 51 735 A1 in view of Cousins (2,690,780), Barton et al. (3,245,453), and Laube et al. 5,246,147).

See paragraph 8 above: it is notoriously well known to make such tire inner tubes from rubber compositions including rubbers, additives and reinforcing agents encompassed by the instant claims, as evidenced by Cousins (col. 1 line 1 - col. 2 line 44 and col. 5 line 44 - col. 6 line 29: butyl rubber, carbon black reinforcing agent, paraffin wax softener and antiozonant, zinc oxide filler, mercaptobenzothiazole and tetramethylthiuram disulfide vulcanization accelerators, sulfur vulcanizing agent), Barton et al. (col. 1 line 12 - col. 3 line 23), and Laube et al. (col. 1 line 12 - col. 2 line 44 and col. 5 lines 18-3 including exemplary processing oil and stearic acid softeners, zinc oxide and magnesium oxide fillers, MBTS vulcanization accelerator, and sulfur vulcanizing agent) for example; it would therefore have been obvious to one of ordinary skill in the art to make the above tire inner tube from such notoriously well known rubber compositions.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adrienne C. Johnstone whose telephone number is (571) 272-1218. The examiner can normally be reached on Monday-Friday, 10:30AM-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

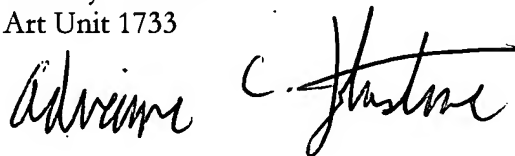
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Adrienne Johnstone

April 5, 2006

Adrienne C. Johnstone
Primary Examiner
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A handwritten signature in black ink, appearing to read "Adrienne C. Johnstone", written in a cursive style.